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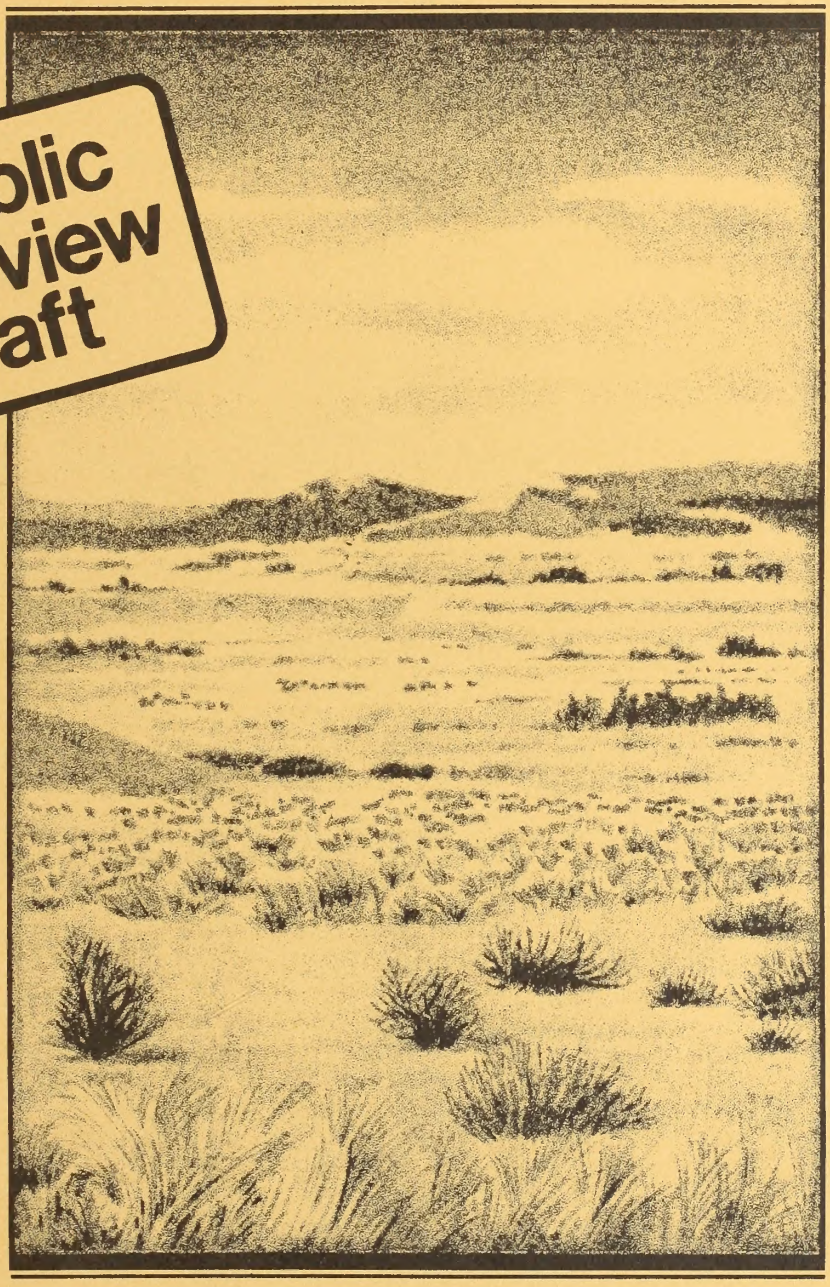
MANAGING THE PUBLIC RANGELANDS

Public Review Draft



U.S. Department of the Interior
Bureau of Land Management

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Encl. WO Inst. memo 80-83

IN REPLY REFER TO:

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

November 1, 1979

Dear Friend:

The President's 1979 Environmental Message signaled a renewed recognition of the important values of the resources of the public rangelands and confirmed a national commitment to making the investments needed to improve the productivity of these resources to ensure a wide variety of economic and social benefits for the Nation as a whole.

The message, and passage of the Public Rangelands Improvement Act last year, reflect the tremendous increase in demands placed on these lands for food and fiber, energy, recreation, wildlife and other national needs. And while we have stopped the long decline in the productivity of these lands, we have a long way to go before we can bring them back to an optimum ecological condition. We have reached a point in history in which all the parties involved--the livestock industry, the wildlife and environmental community, the States, the Congress, and the Federal Government—recognize that their interests are best served by a clear and cooperatively developed program to bring these lands into effective management.

The Bureau of Land Management's responsibility is to improve and sustain the long-term health of the rangeland ecosystem—its vegetation, soils, water—to produce a variety of benefits for the direct and indirect users of these lands across the Nation. At the same time, we recognize the special closeness to these lands felt by communities throughout the West that have depended upon them for economic stability for generations, and we feel a special responsibility to manage these lands in ways which maintain that way of life.

"Managing the Public Rangelands" was drafted by the Bureau of Land Management to describe our overall management philosophy, our goals for these lands, and the ways by which these goals can be realized. But for the rangelands management program to meet future demands successfully, it must be shaped in a manner which reflects the needs and objectives of all rangeland users.

Therefore, I ask that you examine closely this draft management strategy and share with us your comments and suggestions. I would appreciate hearing from you by January 31, 1980.

Sincerely,

Frank Gregg

Frank Gregg
Director

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MANAGING THE PUBLIC RANGELANDS

NOVEMBER 1979

A public discussion document describing Bureau of Land Management policies, objectives, and processes for restoring and maintaining the productivity and balancing the uses of the Nation's public rangelands.

U.S. Department of the Interior

Bureau of Land Management

PREFACE

The public rangelands of the United States, the near-forgotten remnants of the land rush days of the last century, today are being called upon to play a central role in the Nation's future. As the Nation struggles to meet its growing energy, food and fiber, timber, water, recreational and other needs, attention is turning increasingly to the rich potential of the resources of the public rangelands—attention that is long overdue.

The vast public rangelands managed by the Bureau of Land Management are currently far below their productive potential. The reasons are varied, but the principal causes are a legacy of unwise and uncontrolled use from the last century and a history of inadequate public investment in this century. Improving the productivity of these lands today is complicated, in part, by the real conflict in many cases (and a perceived conflict in almost all cases) between the immediate economic needs of individual livestock operators—the principal range users—and the longer-range interests of the operator, his community, and the Nation as a whole.

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The central challenge, therefore, is to increase the productivity and economic value of these resources in an economically efficient and fiscally responsible manner that ensures a better future for all users of the land. Fundamentally, this means managing rangeland vegetation to improve the health of the entire rangeland ecosystem so that it can produce the full range of potential practicable economic and social benefits.

We have never had a better opportunity to achieve this goal. We have a clear mandate in the Federal Land Policy and Management Act of 1976 to bring these resources under effective management. In the court-ordered environmental impact statements we are currently preparing, we have a special opportunity to gain a better understanding of the basic capability of the vegetation and soils of these lands and the needs and desires of the people who use them. We have, in the passage of the Public Rangelands Improvement Act of 1978, a basic objective of improving the range condition of our public grazing lands—which was warmly supported by the livestock industry, the wildlife and environmental community, and the Administration—a national commitment to making appropriate investments in measures that will ensure a more productive rangeland for all uses. And we have in the 1979 Environmental Message Presidential recognition of the critical contributions these lands will be called upon to make to the Nation's future. Finally, we have reached a point in history at which all the parties involved—the livestock industry, the wildlife and environmental community, the States, and the Congress—recognize that their own self-interests are best served by working cooperatively to revitalize these lands.

Our interests, and the interest of the Nation, are to manage the resources of the public rangelands to serve a wide range of uses and to do so in ways that maintain the long-term economic vitality of Western communities that depend on those resources. The livestock industry is the economic and social core of many Western communities and sustains a cherished way of life for a relatively small number of very fortunate people—a way of life that is very important to the way America feels about itself.

Managing the Public Rangelands was prepared to describe, in a simple and straightforward manner, how the Bureau will manage these resources to maintain that way of life and to ensure the benefits of the public rangelands for all Americans.

Frank Gregg
Director

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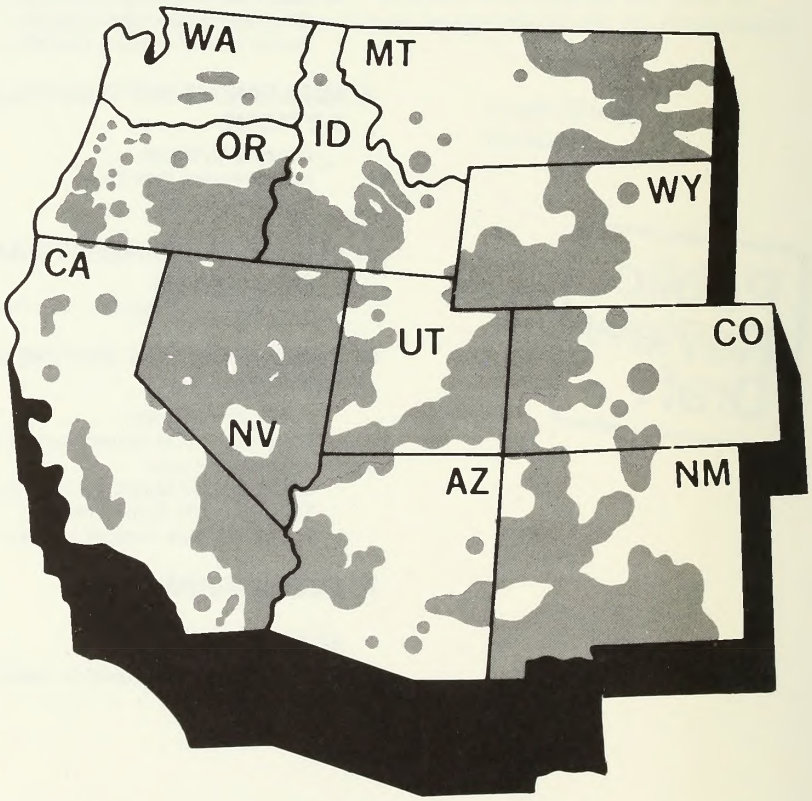
FIGURE 1 — THE PUBLIC LANDS IN THE WESTERN U.S.



Chapter 1.

INTRODUCTION

Of the 174 million acres of public land administered by the Bureau of Land Management in the 11 Western States, 170 million acres—roughly equivalent to the combined area of the mid-Atlantic and Northeastern United States—are classified as "rangelands." (See figure 1.) The term "rangeland" refers to lands on which the native vegetation is predominantly grass, grasslike plants, forbs, or shrubs. The character and natural productivity of these rangelands vary considerably, from grasslands, woodlands and sub-alpine meadows to savannahs, sagebrush plateaus, shrublands, and desert. Taken as a whole, the Nation's rangelands provide a tremendous wealth of products and values: wood products; water; recreational opportunities; base mineral and energy commodities; habitat for wildlife and wild horses and burros; grazing for livestock; extraordinary scientific, historical, and cultural value; and stunning natural beauty. But there is a vast gap today between the potential capability and present productivity of these lands.

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The history of the use of these rangelands was for decades the history of the American West—colorful, wide-open, and largely uncontrolled. And the effect of uncontrolled use of the land was dramatic. By the close of the last century, competition among livestockmen and, to a lesser extent, other users of the range, had left much of these lands depleted and exposed to the elements. Bitter winters and severe droughts, combined with the deteriorating condition of the rangelands, crippled the range livestock industry and it became clear that some control over the use of the public land was necessary.

The increasingly heated national debate on the condition of the public rangelands resulted in passage of the Taylor Grazing Act (TGA) in 1934, the first law passed specifically for the purpose of regulating livestock grazing on the public lands and the beginning of the trend of increasing Federal involvement in rangelands management. Under the Act, specific parcels of the Federal range were allotted for grazing use and efforts were made to bring that use into balance with the productive capacity of the range. The principal shortcomings of the Act were its implied single purpose, to regulate livestock grazing, and its single constituency, the livestock operator. The steady increase in interest in public land resources during the 1960's led to the first articulation of the concept of multiple use management in the Classification and Multiple Use Act of 1964.

Despite these initiatives, by 1974 roughly 135 million of the 170 million acres of rangeland managed by BLM were still in only fair condition or worse. How much the public rangelands have deteriorated and why are matters of considerable dispute. However, there is no question that vegetation production is far below potential. As conflict over what forage was available increased, it became clear that important rangeland values, livestock operations, and the farm and ranch economies of the West would be sharply affected.

Superimposed upon these circumstances was the enactment of the Wild Free-Roaming Horse and Burro Act of 1971. Passed without a single dissenting vote in either House of Congress, this Act established a clear national policy that these feral animals would also have a permanent place on the public rangelands and that their requirements must be acknowledged in the management of a tenuous forage production base.

In 1976, Congress passed the Federal Land Policy and Management Act (FLPMA), requiring that the Federal Government protect and manage the public lands for a wide range of benefits under the principles of multiple use and sustained yield. FLPMA provided for a management system characterized by comprehensive planning and full public participation. FLPMA also settled the lingering question of what would ultimately happen to the millions of acres of public land by establishing that they would be retained in Federal ownership unless in specific cases disposal of a particular parcel was determined, through land use planning, to be in the national interest.

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FLPMA established, for the first time in the Nation's history, the broad policy guidance by which the public lands would be managed, but Congress went beyond FLPMA to focus special attention on the Nation's rangelands.

In the Public Rangelands Improvement Act of 1978 (PRIA), the Congress found, after nearly a half of century of uneven Federal involvement in managing the use of rangelands, that:

- the rangelands were still producing below their potential;
- they would remain in unsatisfactory condition—or decline even further—under present levels of and funding for management; and that
- the unsatisfactory condition of the public rangelands presents a high risk for soil loss, siltation, desertification, water loss, loss of valuable wildlife and fish habitat, loss of forage for livestock and other grazing animals, degradation of water quality, flood danger, and threats to local economies.

To turn this trend around, Congress authorized "an intensive public rangelands maintenance, management, and improvement program involving significant increases in levels of rangeland management and improvement funding for multiple use values." Moreover, the Congress backed up this mandate with a significant commitment: authorizing the investment of $365 million over the next 20 years for a program of intensified rangeland management, but subject to annual appropriations over the next two decades.

Coincident with these new congressional initiatives, the Bureau of Land Management is also required to respond to a major

Federal court mandate. On December 30, 1974, the U.S. District Court for the District of Columbia found, in *Natural Resources Defence Council (NRDC), et al.* v. *Rogers C. B. Morton, et al.,* that the Bureau was in violation of the National Environmental Policy Act by failing to prepare environmental statements for livestock grazing decisions for specific areas of the public lands it administers. Consequently, BLM was eventually required by an amended court order in 1978, to prepare 144 individual environmental statements by 1988, covering all lands grazed by domestic livestock (170 million acres).

BLM's rangeland management program is guided by its responsibility for good stewardship of the land, for restoring productivity and maintaining it, and for providing for the best combination of uses over time. The planning and management requirements of TGA, FLPMA, and PRIA and the environmental statement schedule determined by the Federal court are the principal forces guiding the program.

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The purpose of this report is to describe BLM's program for meeting the mandate of the laws and the court for improving the management and, ultimately, the soil, water, and vegetation condition of the Nation's rangelands. Specifically, this report describes:

- the Bureau's rangeland management policy and the management philosophy behind it;
- the specific objectives of the program and targets of accomplishment;
- how rangeland decisions will be made and implemented;
- the opportunities and challenges presented by the environmental impact assessment process;
- how new improvement funds will be integrated with existing budgetary authorities to support a comprehensive rangeland management program.
- the schedules for completion of the various component programs; and
- who will be involved in the program and how.

The problem of improving rangeland productivity varies from place to place throughout the Western States. Where successful rangeland improvement has been enhanced through effective management, BLM will work with those involved to learn from these successes. Where basic scientific questions block resolution of management issues, BLM will work closely with the scientific community to find answers to these questions. And when hard decisions must be made, BLM will work closely with those involved to ensure that, to the extent possible, they represent the best collective judgment of those responsible for or affected by these decisions. Neither BLM nor the interests involved can expect unilateral decisions to be effective for very long. In the long run, the interests of those who depend upon

the rangelands for their way of life, and the interests of the public at large, will be best served by a long-term commitment to multiple use and cooperation in management.

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Chapter 2.

RANGELAND MANAGEMENT POLICY AND OBJECTIVES

The Federal Land Policy and Management Act of 1976 explicitly establishes the balance inherent in the concept of multiple use. The Act states that the public lands will be managed in a manner:

- that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use (P.L. 94-579, Section 102(a)(8)); *and*
- which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands. (P.L. 94-579, Section 102(a)(12)).

Policy

In accordance with these mandates, it is BLM's policy *to manage efficiently the basic resources of the public rangelands to improve and maintain their productive capability to serve the full range of natural, social, economic, and environmental needs.* In carrying out this policy, the Bureau will be guided by the management requirements for protecting and improving the basic soil, water and vegetation resources; the importance of maintaining a stable and sustainable livestock industry; the need to protect and improve habitat for fish and wildlife resources; the need to maintain viable herds of wild horses and burros; and many other public benefits that these resources are capable of providing.

Management Philosophy

Each rangeland unit is a complex ecosystem composed of plant and animal communities and basic soil types, all responsive in one way or another to natural processes (rain, wind, sunlight) and the activities of man.

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These ecosystems are the potential source of a variety of economic and social benefits and are critical to the stability of many Western communities. The key to unlocking these benefits is wise management of the vegetation resource. The reasoning is straightforward: rangeland vegetation provides cover, litter, and the root structure needed to protect the soil, prevent erosion, and conserve moisture and forage for livestock and food and habitat for wildlife, wild horses and burros.

No single element in the rangeland ecosystem is so readily managed, and with such far-reaching effects, as is vegetation. Consequently, maintaining or improving the vegetation component of this ecosystem is the key to enhancing the resource values of a rangeland area to permit a balanced mix of uses and to ensure sustained yield.

The productivity of this resource is enhanced through a wide variety of management actions designed to secure the desired quantity and quality of vegetation to meet society's needs. Distribution of the benefits of current and increased production is achieved through the allocation of vegetation among competing uses. Decisions about the allocation of these resources are made after the present condition, potential productivity, and trend of the vegetation (improving, static, or declining) has been measured. Then, priority in the allocation of the vegetation will be given to:

- maintaining or improving natural systems and processes to achieve desired plant cover to protect or enhance the entire ecosystem's capability for maintaining soil productivity, reducing erosion and runnoff, protecting water quality, and ensuring sustained production of vegetation;
- protecting any plant or animal species or its habitat listed as threatened or endangered, as required; and
- providing forage and habitat for the mix of grazing animals present, including livestock, wild horses and burros, and wildlife; protecting fisheries values; and enhancing scenic and other values to produce the full range of public benefits.

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The management of rangeland vegetation affects grazing by domestic livestock, wildlife, and wild horses and burros, both in intensity and in patterns and periods of use. At the same time, however, properly managed livestock grazing can also be an important and valuable influence on the range ecosystem. To the extent practicable, therefore, such grazing will be used as a management tool to ensure plant vigor, growth, and reproduction *and* to ensure the maintenance of desired plant species and rangeland ecosystems. To this end, grazing systems will be developed with the participation of livestock operators, specifying the number of animals to be grazed and the grazing treatment to be used. In a similar manner, wild horse and burro populations will be managed to ensure proper balance with available habitat and allocated forage and, in cooperation with State agencies, big game animals will be managed to achieve equilibrium with the carrying capacity of their habitats. This will involve joint habitat management and enhancement activities.

Objectives

The Bureau's objectives for rangelands management are shaped by Administration policy, the clear mandates of the Federal Land Policy and Management Act, the Public Rangelands Improvement Act, and the expressions of need of the various users of the public rangelands articulated through involvement in the Bureau's planning process. BLM is also guided

by technical data on rangeland condition, trend, and potential and short and long-term demand and supply projections for consumptive and non-consumptive needs for vegetation resources on the public rangelands.

Within this context, BLM will pursue the following objectives during implementation of the program. In all cases, proper management of the vegetation will be the means for meeting each of these objectives, especially those relating directly to the basic soil, water and vegetation resources. Where appropriate, targets for accomplishment are included:

1. Improve the condition of rangeland vegetation and maintain it at desired levels of quality, quantity, and diversity.
   Target: Improve 135 million acres of vegetation currently in poor or fair condition to higher classes.

2. Reduce erosion, minimize sedimentation and siltation, promote infiltration and ensure the stability and productivity of rangeland soils.
   Target: Reduce erosion occurring on 68 million acres currently in severe, critical, or moderate condition and stabilize 80 million acres now in slight erosion condition.

3. Ensure that water of sufficient quantity and quality is available to provide for the basic needs of the vegetation, protect ground water recharge, meet Federal and State water quality standards, and provide for recognized uses.

4. Minimize short-term disruption and ensure the long-term stability of the Western livestock industry and the economies of many Western communities dependent upon the public lands through cooperation in management.

5. Increase forage supplies for lifestock, wild horses and burros, and wildlife as a principal output of improvement of the rangeland ecosystem.
   Target: Double the current annual forage production from 5.6 million tons to 11.2 million tons per year.

6. Ensure the protection of threatened or endangered plant and animal species and their habitat.
   Target: Provide appropriate management on 54 million acres of potential habitat for six endangered species presently identified in recovery plans until further information on the location of and kinds of habitat protection needed is more precisely determined.

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7. Provide and protect habitat for fish and wildlife to ensure stability and natural diversity; enhance streamside, shoreline, emergent, and submergent vegetation; and provide water of a quantity and quality necessary for fish, other aquatic organisms, and waterfowl.
   Target: Protect and enhance 155 million acres of terrestrial habitat; improve and protect 6,500 miles of streams.

8. Regulate and manage flood plains and wetlands to ensure protection of people and property and to improve and conserve riparian systems.

9. Protect areas of special natural, scenic, historical, cultural, and scientific value, and protect the public from areas of natural hazards.

In the pursuit of these objectives, the Bureau will ensure public involvement through coordination, consultation, and cooperation with Federal, State, and local government representatives, the academic and scientific community and the private sector in planning, managing, and administering the Nation's rangeland resources.

Chapter 3.

THE RANGELAND MANAGEMENT DECISION PROCESS

When the Congress decided, in the Federal Land Policy and Management Act (FLPMA) of 1976, that the Federal Government would retain and manage for broad public benefit the land within the Bureau's jurisdiction, it also required that comprehensive land use plans be prepared to guide the management and use of these lands. The Public Rangelands Improvement Act of 1978 reiterated this requirement and gave special emphasis to the need for a continuing inventory of rangeland condition and trend so that management actions and rangeland resources uses could be modified accordingly.

This chapter describes the process by which rangeland management decisions will be made, within the context of the Bureau's overall land use planning system; how these decisions will be carried out; and how the effects of these decisions will be monitored.

The components of this comprehensive planning process are familiar ones; they have been a part of the rangeland program for some years. However, as the direction of resource management changed from dominant use to multiple use, the content of each component has also changed. For example:

- *Inventory* work, which in the past focused almost solely on assessments of livestock grazing capacities, will now assess the total production potential of all vegetation species and the soils in rangeland ecosystem—for livestock, wild horses, wildlife, and a variety of other uses.
- *Land use plans,* which had been designed primarily to determine how available vegetation would be allocated among grazing users, will soon cover a wide variety of potential uses—not just livestock but also wildlife habitat, soil and water protection, wild horses and burros, and aesthetics, among others.
- *Environmental statements,* which have been written on specific, and therefore isolated, grazing activity plans, will be written instead, beginning in 1984, on comprehensive Resource Management Plans which cover all resource use decisions.
- *Grazing management and range improvements* which have largely related to livestock needs will now be designed to enhance the basic resources for a much greater variety of needs and uses.

Identifying the Issues

A principal criticism of past planning efforts has been that inventory and planning work has lacked clear focus on publicly perceived resource management problems. To rectify this problem, as early as two years before revising or developing new land use plans, BLM will work with local and State officials, other Federal agencies, interest groups, and residents of the area under study to identify problems, issues, conflicts, and needs. For rangeland management, this process—called "preplanning analysis"—will examine the quality and level of information available or needed on vegetation and soils; water values for desired uses; existing and potential conflicts for the

use of the land; and socio-economic concerns. The preplanning analysis will serve as both the first stage in the process of public involvement in rangeland management and as a vehicle for identifying information needs, the level of planning required, and time and manpower requirements for the balance of the planning process.

Rangeland Resource Inventory

One of the principal purposes of inventory is to measure the vegetation currently being produced in a particular rangeland area and compare it to what the site is potentially capable of producing. Vegetation production varies from year to year thus this measurement takes into account the current rainfall and weather conditions so as to arrive at a reasonable estimate of production in an average year. The quantitative assessment of present vegetation production and species composition compared to the potential is expressed as the ecological condition of the site. Basically, the present condition and productivity of the rangeland resource is the starting point for management decisions designed to bring the resource to a desired level of productivity and quality. Vegetation condition is an expression of the degree to which the kinds, proportions, and amounts of plants in the ecosystem approach the potential of that system. It is *not* an expression of the ability of the system to support a certain type of use. But since condition does not indicate whether the unit is improving or declining, subsequent inventory data are also needed to describe trend, or what is happening to the resource. Knowing the present condition and ecological potential of the resource helps identify the kinds of management actions necessary to achieve management objectives. Knowing the trend and actual grazing use helps determine how much has to be done and makes it possible to monitor and interpret change caused by management actions.

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The present ability of the ecosystem to support specific uses—as distinct from its ecological condition—is measured as "rangeland quality." Quality can be expressed as, for example, how well the existing kind and amount of vegetation available will protect the site against excess erosion and runoff; the ecosystem's ability to produce a stable and predictable supply of preferred livestock forage; or the capability of the system to provide for wildlife habitat needs. Thus, where ecological "condition" is an expression of the degree of achievement of the potential of the rangeland ecosystem, "quality" is an expression of its ability to meet specific use demands.

In conducting rangeland inventories, BLM will use techniques and procedures that conform to existing national standards, such as the National Cooperative Soil Survey. The Bureau is working with four other agencies (Forest Service, Soil Conservation Service, U.S. Fish and Wildlife Service, and U.S. Geological Survey) to develop common classification systems for soil, vegetation, land forms, and aquatic parameters. BLM

will continue to work with these and other agencies to utilize new techniques (such as remote sensing) and develop common methodologies, definitions, terms, and data processing, storage and retrieval systems to increase the speed, accuracy, and efficiency of inventory work.

The determination of stocking rates for livestock stemming from the inventory data must be viewed in proper perspective. While BLM tries to be as accurate as possible, because of all of the variables in nature, these are initial stocking rates only, and monitoring studies must be implemented to evaluate management programs over time and to provide the basis for adjustments as necessary.

Land Use Planning and Vegetation Allocation

For each resource area, the Bureau develops land use plans, (formerly called Management Framework Plans) designed to respond to the management responsibilities of the Bureau and the concerns and use conflicts identified through preplanning analysis by the various public interests and governments in that area. These plans are the heart of the Bureau's work as managers of the public land and are central to rangelands management. The rangeland components of these plans are developed by interdisciplinary teams with extensive and continuing public participation. They consider the present and potential productive capability of the rangeland ecosystem described in the inventory process, identify a series of alternative ways to resolve identified problems and meet resource needs in light of that productive capability, and finally, identify specific steps to be taken to maintain or improve the rangeland resource and accommodate multiple use demands.

In addition to resolving such traditional questions as where, when, how much, and in what manner use will occur on the rangeland unit, these plans will also determine:

- how much and what kind of vegetation is needed to maintain or enhance soil productivity and provide protection against erosion and water quality degradation?
- what measures must be taken to protect and preserve cover and habitat for threatened or endangered species and their habitats?
- what manner, degree and periods of use by livestock grazing is appropriate to achieve an economically viable—stable—industry while achieving other rangeland benefits as mandated by national policy?
- what management techniques are needed to ensure the availability of sufficient forage and cover for wildlife and wild horses and burros?

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The allocation of scarce vegetation is a fundamental issue in rangeland management and is a key decision in the rangeland planning process. Before the Bureau can allocate vegetation for consumptive uses, it has to determine the nonconsumptive needs, such as the minimum growth requirements of the plant species in the area, the vegetation needed for soil stability and

watershed protection, and the cover requirements of certain species of wildlife.

In determining how much consumptive use by grazing animals can be accommodated in a given area, the Bureau will consider the variety of ecological and land-use factors. These include the species of vegetation present, physiological needs of the individual plants, the amount of use the various plants can withstand, current range condition and trend, plant species composition desired to accomplish multiple-use objectives, diet of the grazing animals during the period in which grazing use occurs and other objectives in land-use plans.

The mix of grazing animals and the degree to which they compete for the same species of vegetation determine the number of each kind of animal that can be accommodated and still achieve the objective of maintaining or improving the condition of the range.

A further constraint on the allocation of vegetation is the suitability of a particular area for livestock or other types of grazing. The Bureau applies four major criteria to determine whether areas that may be "usable" in terms of vegetation can actually be grazed without damage or will be grazed only after other areas have been overgrazed. To determine whether an area is suitable for livestock or other identifiable grazing and can be credited to the overall forage supply for allocation, the Bureau examines each area and considers the following factors to the extent they are applicable:

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- **Slope**—areas with a slope in excess of 50 percent are usually not suitable for livestock grazing. Consequently, although forage may exist, livestock will normally graze the more accessible slopes before utilizing steeper topography.
- **Distance from water**—areas more than four miles from water in fairly level terrain, and somewhat less than four miles in steeper country, will normally not be grazed until the forage nearer to water is exhausted. Thus, if the objectives is to keep these areas from being damaged, the forage value of more distant areas cannot be credited since they will only be used after areas closer to water have been completely overgrazed.
- **Low Forage Production**—areas producing less than 25 pounds of forage per acre, particularly when intermingled with higher producing areas will normally not be grazed until the higher producing sites have been exhausted.
- **Highly Erodable Areas**—areas where the erosion or soil surface factor (SSF) is 60 or above would be heavily damaged by grazing, accelerating erosion further, and are therefore unsuitable for use by livestock.

As the planning process approaches a decision point, the Bureau manager moves to incorporate the needs and desires of various user groups, other resource interests, and the general

public into the catalogue of data collected on the rangeland area. Armed with information on the capacity and suitability of the rangeland area for a variety of uses, and expressions of need from various public interest groups, the livestock operators, and the communities involved, the Bureau can determine how many of each kind of grazing animal can be accommodated in an average growth year during a given period of use while still ensuring maintenance or improvement of rangeland conditions and attainment of multiple-use objectives. Since the competing demands for available vegetation virtually always exceed the supply, the Bureau's responsibility is to strike a balance which best meets the needs of all users within the biological limits of the resource and the information available.

Environmental Impact Statements/Program Documents

In the spring of 1971, shortly after passage of the National Environmental Policy Act, BLM began drafting a programmatic environmental impact statement (EIS) to cover decisions made in the rangelands program. In October 1973, seven months after a preliminary working draft of the EIS was circulated for informal review by representative groups, the Natural Resources Defense Council (NRDC) filed suit in the U.S. District Court of the District of Columbia to require BLM to prepare individual site specific EIS's for grazing management decisions covered in allotment management plans. A year later, on December 30, 1974, the Federal Court found in favor of NRDC and directed the preparation of a subsequent agreement with BLM which required the preparation of 212 EIS's (now consolidated to 144) over a 13-year period ending on September 30, 1988. According to the Court:

> "Each EIS contemplated by this Order shall discuss, in detail, livestock grazing activities and all reasonable alternatives thereto. Livestock grazing activities as used in this Order shall mean all existing or proposed livestock grazing, all grazing authorization issued or contemplated to be issued by the BLM as well as those substantial activities which are supportive of and related to livestock grazing administered by the BLM, such as fencing, seeding, and brush removal...."

Basically, this meant that the Bureau must openly and objectively analyze the impacts of alternative levels and systems of livestock use on the land itself, on soil stability, water, wildlife, and other values and make a judgment, based on careful consideration of these alternatives, that provides for the best combinations of uses.

The Bureau's grazing environmental impact statements (EIS's) display proposed management actions for an area and the process by which those actions were determined to be necessary. The EIS describes the information collected and how it was analyzed, the alternatives examined and their impacts, and the proposed action presented in the plan. By

1984, rangeland EIS's will cover not just lifestock grazing but the full range of activities and uses of the rangeland area. At present, however, the EIS's focus is on livestock grazing and related actions. Because the EIS's are disclosure documents and not decisions themselves, the Bureau is now preparing concise and plainly written Rangeland Management Program documents which describe management actions for grazing within the context of all the resources in the area, including for example, wildlife habitat enhancement, practices for watershed protection, and others. A Rangeland Management Program document is released after each final EIS is filed and prior to or concurrently with the issuance of individual decisions about adjustments in grazing use. Local BLM managers use these documents as the vehicle for describing all of the management decisions for the area to affected rangeland user groups and individuals.

Generally the text of each such document covers:

- a brief description of the history of the area, and the existing uses of the rangelands;
- a description of what the management program is and what it does—the substantive actions resulting from the decision related actions, likely environmental, economic, and social results, and why the decision was made;
- an examination of the alternative actions considered and why they were or were not selected;
- how the public was involved in the process and how their wishes were handled; and
- how the program will be implemented, including administrative actions, range improvements, grazing use adjustments (both increases and decreases), estimated costs and timing of implementation, and methods of monitoring results.

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These program documents will serve as a bridge between livestock grazing issues and the broader management concerns in the area.

The Bureau intends to use the process of preparing the court-ordered EIS's consciously and deliberately as a vehicle for generating broadly based understanding and involvement in the management of the Nation's rangeland. The broad public participation requirements of NEPA, applied to each of the 144 individual EIS's, provide an unprecedented opportunity for creating widespread awareness of the less than satisfactory condition of the Nation's rangeland resources and the mounting demands on those resources, and for securing participation and support at the local level and in the Congress for multiple use decisions. For individual Western communities, each EIS offers a special opportunity for cooperation and consultation with the Bureau, related Federal and State resource management agencies, and a wide cross section of interest groups, in the management of the public rangelands.

Social and Economic Impacts and Mitigation Opportunities

The Bureau's first responsibility is to secure effective management of all public land values including rangeland resources. FLPMA and PRIA and the decision of the Federal Court are clear in this regard. This means management to maintain the basic soil, water, and vegetation resources, and management of the use of these resources by livestock, wild horses and burros, and wildlife and protection of other public values.

There is, however, very real potential conflict in these management decisions between the short-run economic interests of individual livestock operators and the long-run interests of the community, the operator himself, and the Nation as a whole in improving the condition of the rangeland resource. As part of the EIS process, the Bureau assesses the short-term social and economic impacts of management actions on community and individual incomes and lifestyles, availability of capital, impacts on the local labor market, and implications for subdivision and land speculation. The use of typical ranch budgets of various sized operations and the assessment of grazing decisions on the economics of such operations are being integrated into the analysis process. By the same token, the Bureau also assesses the likely effects on other sectors, such as the increased value of wildlife, fisheries, soil stabilization, water quality, and recreation to the community. But these benefits often accrue not to the affected rancher but to others in the community. And while BLM seeks to display both the adverse short-term effects of needed stocking rate reductions where such action is deemed necessary against the long-term benefits of increased rangeland productivity, essentially the same problem remains: the benefits, if too far in the future, may accrue to someone else.

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Still, given the generally unacceptable condition of the Nation's rangelands, it is clear that grazing use will be subject to some adjustment in nearly all of the EIS areas both for domestic livestock and for wild horses and burros where they occur. But the nature of these adjustments will vary. In the nine areas for which EIS's were completed in 1978, for example, downward adjustments for authorized livestock use were required of 44 percent of the allotments while 14 percent were allowed increases and 42 percent remained essentially unchanged. Subsequent EIS's are likely to follow this trend. In most cases, such adjustments are neither inflexible, immediate, nor unexpected.

First, adjustment in authorized grazing use (in AUM's of allowable use) may be imposed by changing (a) the period of use and/or (b) the number of animals permitted to use the public rangeland within an allotted area. How the reductions are taken is negotiated with the operator and may result in no change in numbers of livestock grazed, but a shortening of period of use.

Second, adjustments in authorized livestock use are usually the culmination of a four to five year process which includes inventory, planning, preparation of EIS's and issuance of decisions. While the exact amount of the adjustment may not be known until the decision is rendered, grazing permittees usually have sufficient advance knowledge of impending adjustments so that they have the opportunity to arrange for alternative sources of livestock forage or to make other management adjustments needed to balance out their operation. It is the Bureau's intent to issue decisions as far in advance as possible of the beginning of the first affected grazing season to give operators time to adjust to revised forage allocation. In any event, where reductions are called for in authorized grazing use (AUM's) they can be scheduled over a three year period if consistent with resource conditions and needs. This schedule will be worked out with the grazing permittee so that both the well-being of the resource and the needs of the permittee can be accommodated as nearly as possible. Where the reductions are needed, the difference between the amount of grazing use authorized and the permit preference will be held in a suspended status. As range productivity is restored, all or part of this suspension may be reactivated.

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In addition to working closely with individual operators and phasing the implementation of downward adjustments over several years, BLM is developing a strategy for mitigation of short-term negative effects in two ways. First, within its existing authorities, BLM is trying to find ways to ameliorate techniques for understanding the effects of management actions on individuals and communities and, through the stewardship program provided for in PRIA and direct discussions with livestock industry representatives, seeking innovative approaches to the fundamental problem of allocating limited vegetation to competing uses.

Second, BLM is researching avenues open to the rancher and the livestock community for helping themselves through short periods of adversity immediately following reductions in use. Steps available to ranchers might include, for example, using existing Federal cost-sharing programs to improve the productivity of their own land, exploring short-term leasing of non-Federal land, and financial assistance available through a variety of private lending institutions, among others.

The Bureau's long-term objective, however, is to increase the total economic and social value of rangeland resources to provide a better future for the individuals and communities that depend on public lands—and for all user interests of these resources—by managing the use of the land in a way that increases its productivity potential.

Chapter 4.

IMPLEMENTING RANGELAND MANAGEMENT ACTIONS

Implementation of the recommended actions in the land use plan for a resource area is guided by a series of functional activity plans. There are Herd Area Management plans for wild horses and burros, Habitat Management Plans for wildlife, Allotment Management Plans for livestock grazing, and others. Each plan explicitly details planned programs and management actions designed to accomplish proper land and resource management for the full mix of public uses.

"Full Force and Effect"

Decisions about the levels of livestock use that can be permitted in the area are made expeditiously following the lengthy process of inventory, planning, EIS, and public review. It is the policy of the Bureau that these decisions will be placed in "full force and effect" so that management programs can be implemented without delay. Decisions become effective at the beginning of the next grazing year (March 1) in the fiscal year following completion of the EIS and Rangeland Management Program document. The manner in which reductions or increases in use are taken can be worked out with the permittees and can be phased in over a three-year period.

Grazing Systems

To provide needed periodic rest from grazing at critical stages of plant growth, the Bureau will initiate a specific grazing system as part of the implementation program. The system employed is developed in cooperation with the livestock permittee and is tailored to fit the characteristics and needs of the area, management objectives, the types of vegetation present, kinds of grazing animals, periods of use, etc. No single system works well everywhere or under every circumstance. From the choice of grazing systems available the Bureau and operator determine the best combination and sequence of grazing treatments for meeting the management objectives and needs of the area. The cost of fencing, water, vegetation treatment, moving livestock and other factors necessary to carry out the system are carefully weighed.

Improvement Practices

Timely and efficient completion of on-the-ground maintenance and improvement work are key factors supporting management actions to achieve rangeland improvement objectives. Implementation plans include, as appropriate, the scheduling of soil protection measures, land treatments (e.g., seeding, burning, brush control, etc.), water facilities, and other practices. Generally, priority will be given to those improvements that, in combination with management, are the most economically efficient and will achieve the earliest benefits.

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Proper and reasonable stocking levels for grazing animals, intensive grazing management systems, and investments in supporting range improvement projects are essential ingredients in the range management program. So long as stocking levels are too high, grazing systems cannot succeed and investments in improvements cannot be prudently made.

Monitoring

The initial stocking rates are based upon the best data currently available. Close monitoring of grazing systems and progress toward improvement are needed for the Bureau to be able to make periodic adjustments. An aggressive monitoring program must and will be established in each planning area to determine whether the goals and objectives of the resource management plan are being achieved effectively by the management systems and maintenance and improvement practices underway. This is perhaps the most critical element of the Bureau's rangeland management program. Studies of trend in range condition will be conducted to monitor changes in vegetation composition, ground cover, production, and other characteristics. Where undesirable and unintended changes in resource values are discovered and the causes are determined, corrective action will be taken.

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Evaluation studies will be conducted to monitor changes in wildlife and wild horses and burro populations and habitats, water supply and water quality, soil condition and erosion rates, and other resource values. Data from all these studies will be evaluated concurrently to determine the relationship between cause and effect within the entire rangeland.

Chapter 5.

PUBLIC INVESTMENTS AND BENEFITS

While the Bureau's rangelands management program is driven by the legislative mandates of FLPMA and the PRIA and the court-ordered schedule for completion of grazing environmental impact statements (EIS's), the program derives its financial support through a variety of budget authorizations. This chapter describes how these authorizations will be used in carrying out the programmatic components of the program (inventory, planning, EIS's, improvement projects).

The Budget Strategy

FLPMA gives the Bureau the basic responsibility and authority for managing the public lands within the principles of multiple use and sustained yield and provides for four-year budget authorizations for carrying out programs to meet these objectives.

Congress and the Administration underscored their commitment to improving the quality and productivity of the public rangelands with the Public Rangelands Improvement Act (PRIA) and the 1978 amendments to the Sikes Act. These two laws direct the Bureau to place special emphasis on improving and managing basic soil, water, wildlife, and vegetation resources to enhance their value for a variety of public uses and provide complementary and supplementary budget authorizations for the Bureau's on-going range, wildlife, and soil and water programs.

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The four-year authorizations under Section 318 of FLPMA will provide the basic funding authority for the range, wildlife, soil and water management as well as all other programs developed by BLM, including data collection, planning, environmental assessment, project design, and on-the-ground maintenance and development work.

Section 5 of PRIA provides additional funding authority to augment the basic authorization in FLPMA. It directs that no less than 80 percent of funds appropriated under this authorization be used for on-the-ground work for multiple use benefits.

Finally, Title II, Section 209 of the Sikes Act provides additional funding authority for rangeland-related programs and activities over and above any other authorizations. As shown in Figure 2, the Sikes Act provides for a wide variety of rangeland improvement projects and, in particular, increases opportunities for fish and wildlife habitat enhancement.

These three building blocks—FLPMA, PRIA, and Sikes—provide authorization for rangeland management programs over the next two decades. In addition to these three programs, funding support for on-the-ground work is also available through the range betterment funds derived from 50 percent of the grazing fees paid by livestock operators using public lands.

FIGURE 2 — COMPARISON OF ACTIVITIES AUTHORIZED UNDER MAJOR RANGE MANAGEMENT FUNDING SOURCES

Activities	Authorization			
	FLPMA	Range Betterment	PRIA	Sikes Act
Rangeland Improvements/Maintenance				
Water Developments - Livestock	★	★	★	★
- Wildlife	★	★	★	★
Vegetation Manipulation	★	★	★	★
Fencing - Management	★	★	★	★
- Protection	★	★	★	★
Erosion/Sediment Control	★	★	★	★
Streambank Stabilization	★	★	★	★
Stream Improvements (Instream)	★	★	★	★
Animal Population Manipulation - Wildlife	★			★
- Horses/ Burros	★	★		★
Range Improvement Modifications	★	★	★	★
Range Improvement Maintenance - Livestock	★	★	★	★
- Wildlife	★	★	★	★
Artificial Habitat Structures (perches, islands)	★		★	★
Wetland Development (marshes, bogs, etc.)	★	★	★	★
Endangered species Habitat - Protection	★	★	★	★
- Development	★	★	★	★
Other Related Activities				
Resource Inventories - Soils/Vegetation	★			★
- Wildlife	★			★
- Horses/Burros	★			★
Studies/Research - Rangeland	★		★ Ltd	★
- Wildlife	★			★
Planning - Multiple Use	★			
- Allotment Management Plans	★			
- Habitat Manangement Plans	★			★
- Project Design	★	★	★	★
Use Supervision - Grazing	★		★	
- Hunting/Fishing	★			★
Law Enforcement - Arrest	★			★
- Citation				★

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Figure 2 displays the relative flexibility of each of the funding sources for meeting program needs and illustrates the somewhat limited applicability of both PRIA and range betterment funding.

FIGURE 3 — FUNDING FOR RANGE/SOIL, WATER AND WILDLIFE PROGRAMS

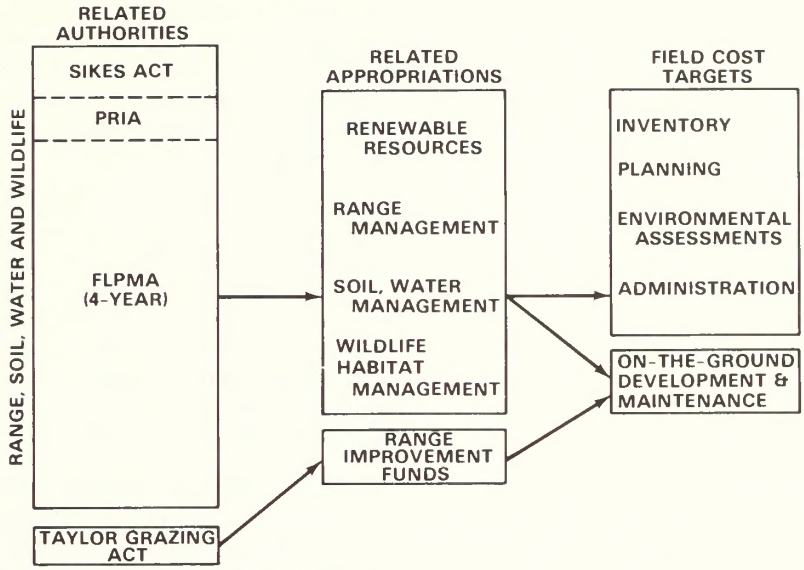

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FIGURE 4 — FUNDING AUTHORIZATIONS VERSUS PROJECTED FUNDING NEEDS FOR RANGE/SOIL, WATER AND WILDLIFE PROGRAMS

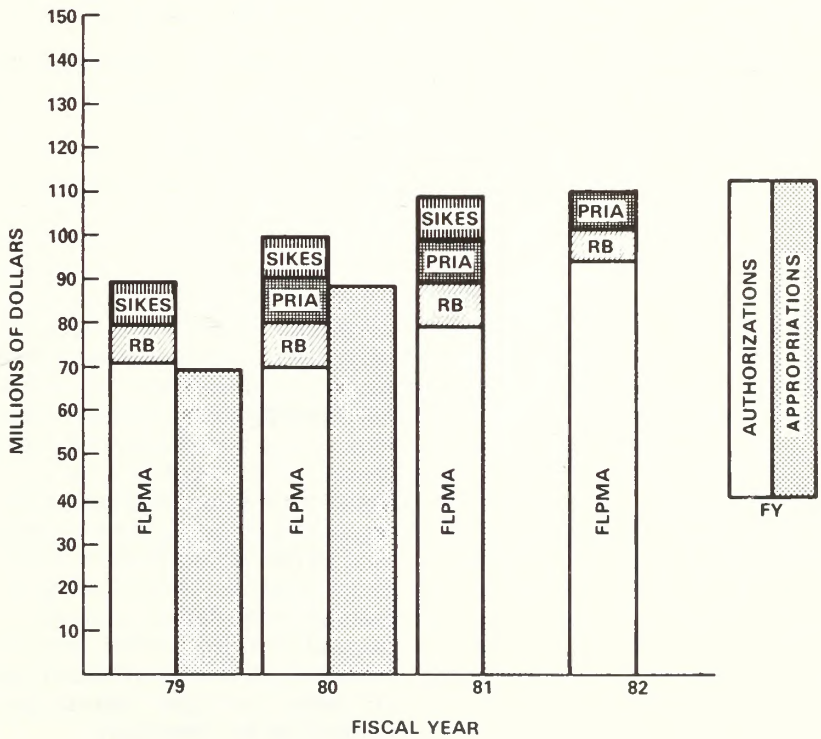

Figure 3 illustrates how each of these authorizations will be used in the Bureau's rangeland management strategy. Sikes Act and PRIA funds build upon the Secretary's requested four-year authorization and, to a greater or lesser degree, can fund the full range of management actions. As noted above, grazing fee monies can only be used for on-the-ground work including project survey, design, maintenance, contract administration, and other functions that directly support the implementation of on-the-ground work.

Figure 4 illustrates how these four authorizations build over time and compares them with appropriations to date under the Bureau's existing rangeland management program. Indications are that there is ample authorization for the range management program through fiscal 1981. Available authorization levels from fiscal 1982 on are largely uncertain due to pending reauthorization of the Sikes Act and the scope of the range-related requests under FLPMA's next four-year authorization for BLM, which would cover fiscal years 1982 through 1985.

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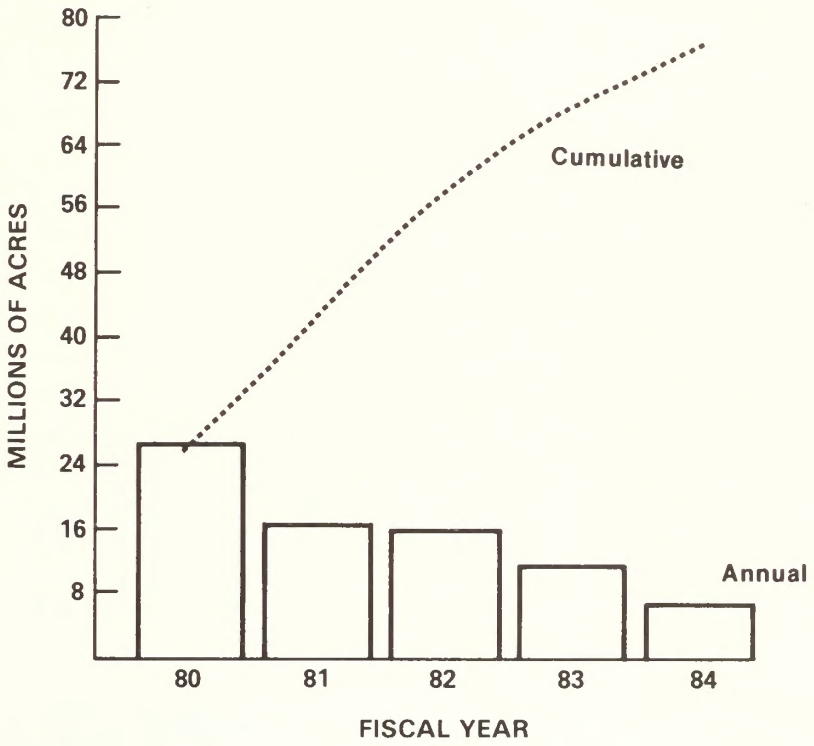
For many reasons—because the rangelands constituency has been small, narrow, and regional; because the decline in rangeland productivity is undramatic; perhaps even because the overall budget for rangeland management is modest to begin with—funding for rangeland management programs has historically failed to receive emphasis in annual budgets. However, passage of PRIA and the reauthorization of the Sikes Act reflect the growing recognition of the importance of improving rangeland resources.

The concern for good stewardship of these lands was expressed by President Carter in his Environmental Message of August 2, 1979—the first time in recent memory that these lands were a distinct topic in such a message. The President has committed his administration "to purposeful management of the public lands and resources administered by the Bureau of Land Management." He has directed the Secretary of the Interior to establish a comprehensive "program development process" for managing all BLM lands which will analyze programs "designed to achieve environmentally sound, fiscally responsible and economically efficient investment, development, protection, and resource use." He has specifically acknowledged "a concerted federal effort...now underway to reverse the declining productivity of the 170 million acres of rangeland ecosystems managed by the Bureau of Land Management for livestock, wildlife, soil and moisture conservation, and other beneficial purposes." He has also pledged that "the Federal Government will be a good neighbor" and provide full opportunity for those affected by our management decisions to be involved in making them. The Bureau and the Interior Department will work closely with other Administration officials, with key congressional committees, and with the major interest groups to achieve these goals and policies of the President.

Proposed Program Implementation Schedules

Estimated schedules for achievement of major components of the Bureau's rangelands management program have been developed, and Figures 5-8 illustrate both annual and cumulative totals for each major component.

FIGURE 5—RANGELAND INVENTORY ACREAGE ANNUALLY AND CUMULATIVELY



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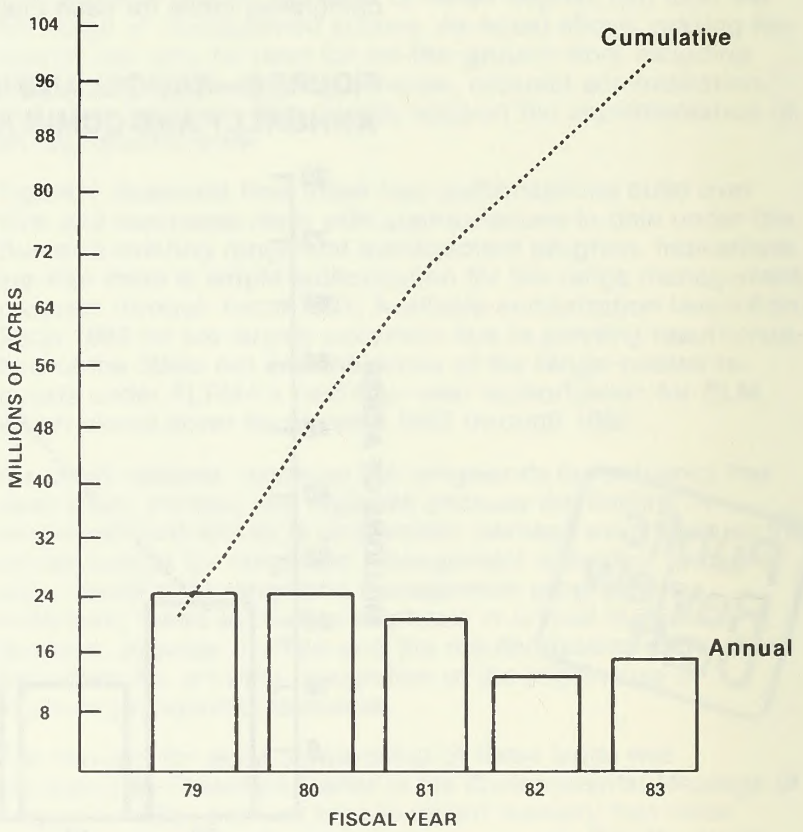
Rangeland inventory acreage peaks in fiscal 1980 at about 26 million acres and will decrease gradually over the next several years as resource management planning and implementation activities increase. By 1984, initial resource inventories will be completed on an additional 80 million acres. These inventories are geared to those soil, vegetative and wildlife inventories needed to support subsequent land use plans and resultant environmental impact statements. Completion of land use plans (and later resource management plans) is highest in fiscal 1979 and 1980 (Figure 6), with plans covering roughly 25 million acres each year, decreasing to roughly 16 million acres in fiscal 1983. As with inventories, these figures, however, relate only to those land use plans scheduled to meet the timetable for completion of the court-ordered grazing EIS's. By the end of fiscal year 1983, these plans will cover a total of 104 million acres of western rangelands.

FIGURE 6 — LAND USE PLANS* ANNUALLY AND CUMULATIVELY



*THOSE LANDS USE PLANS SCHEDULED TO SUPPORT THE GRAZING ENVIRONMENTAL STATEMENT TIMETABLE. OTHER PLANNING NOT INCLUDED.

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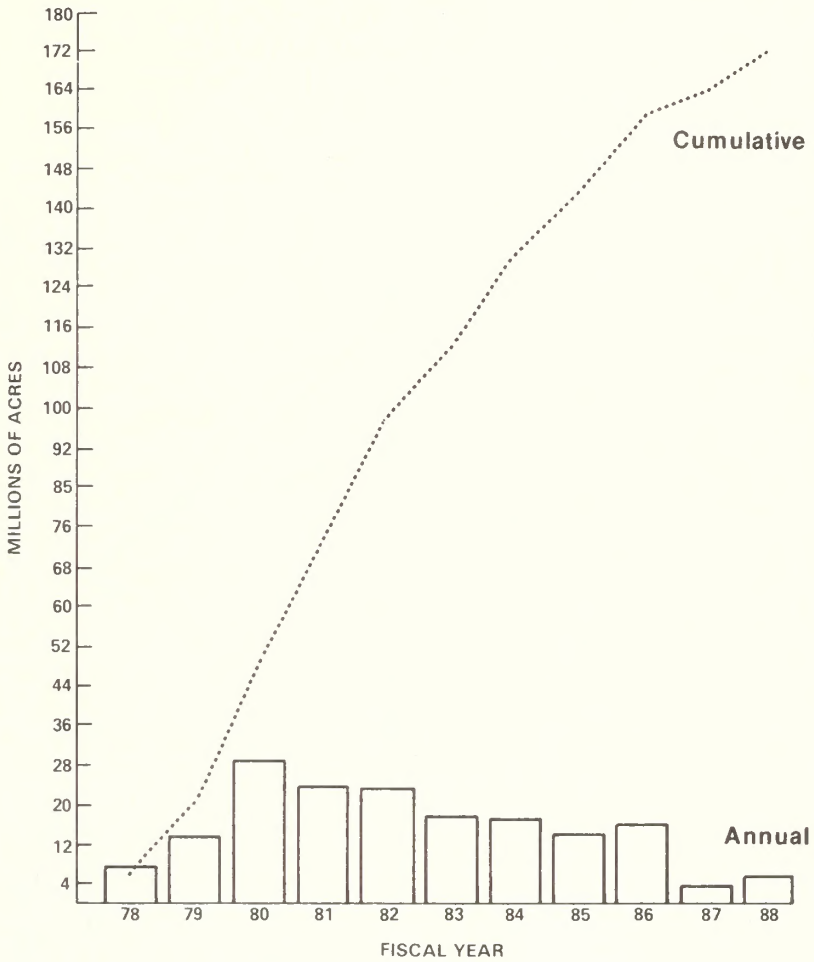
The court-ordered schedule for completion of livestock grazing EIS's, based on the amended final judgment and the Bureau's preliminary schedule for fiscal 1983 through 1988, peaks in fiscal 1980 with EIS's completed on roughly 28 million acres in that year. The annual completion schedule (Figure 7) drops off gradually through 1988, at which time EIS's will have been completed on 170 million acres of rangeland.

FIGURE 7 — ENVIRONMENTAL STATEMENTS ANNUALLY AND CUMULATIVELY IN ACRES COVERED



SOURCE: AMENDED FINAL JUDGEMENT AND BLM PRELIMINARY SCHEDULE FOR FY 83-88

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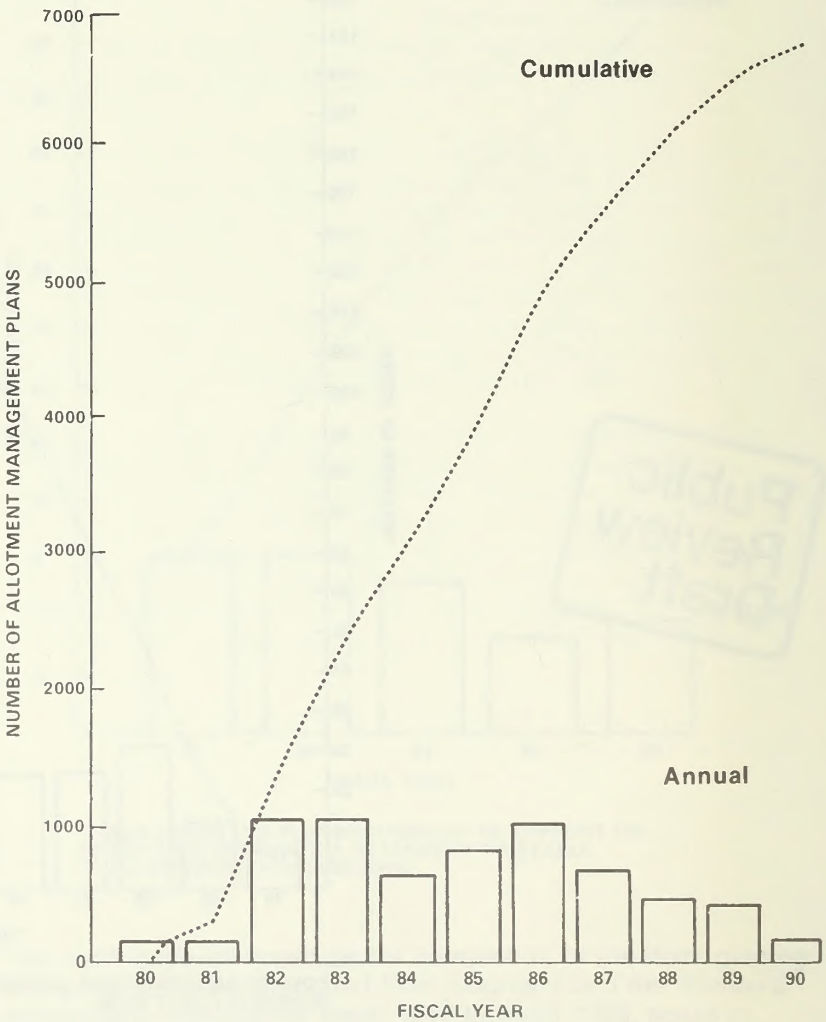
Activity plans to implement the recommendations encompassed in land use plans will be completed shortly after the completion of the land use plan for a given planning unit. As an example, completion of new allotment management plans (Figure 8) for livestock management on rangelands will peak in fiscal year 1982 and 1983, with roughly 1,000 AMP's each year. AMP completions begin to taper off steadily after fiscal 1986. By fiscal 2000 nearly 7,000 individual allotment management plans are targeted for completion. Implementation of such plans will be subject to investment criteria including analysis to insure economic efficiency; and improvements will be undertaken when the evaluation indicates positive public benefits.

FIGURE 8 — ALLOTMENT MANAGEMENT PLANS ANNUALLY AND CUMULATIVELY (IN AMPs COMPLETED)



SOURCE: BUDGET INFORMATION DATED 9/22/78

THESE ARE NEW ALLOTMENT PLANS AND DO NOT INCLUDE THOSE IMPLEMENTED BEFORE FISCAL YEAR 1980.

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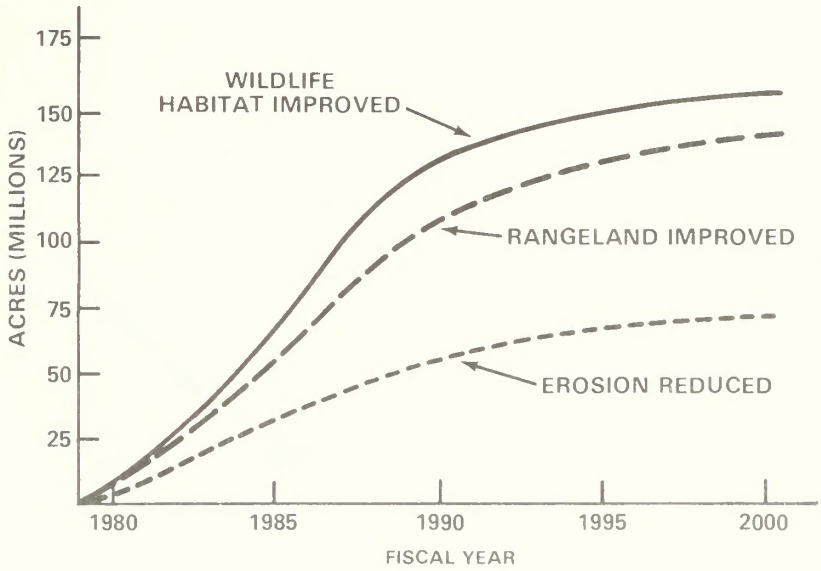
FIGURE 9 — TARGETS FOR ACCOMPLISHMENTS OF RANGELAND IMPROVEMENT PROJECTS AND PRACTICES

• RANGELAND & HABITAT IMPROVED, EROSION REDUCED. (IN MILLIONS OF ACRES):



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• ADDITIONAL FORAGE (MILLIONS OF TONS):

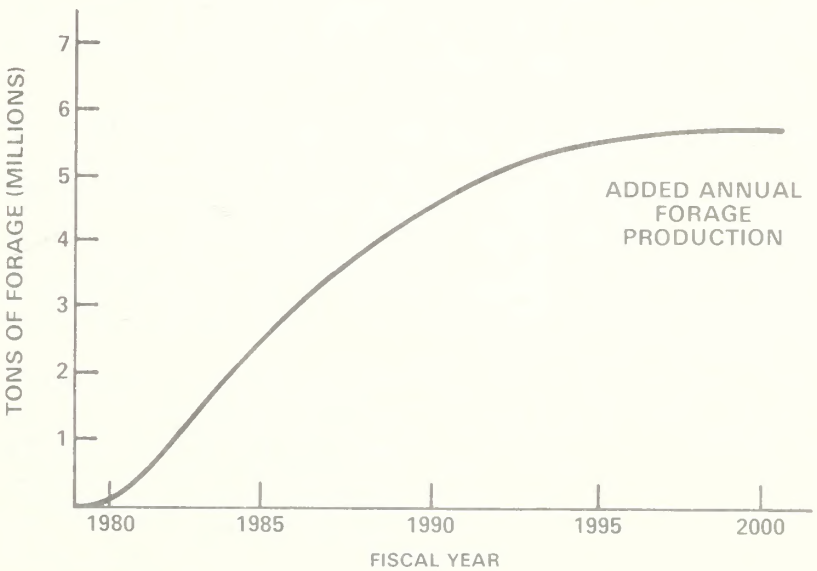
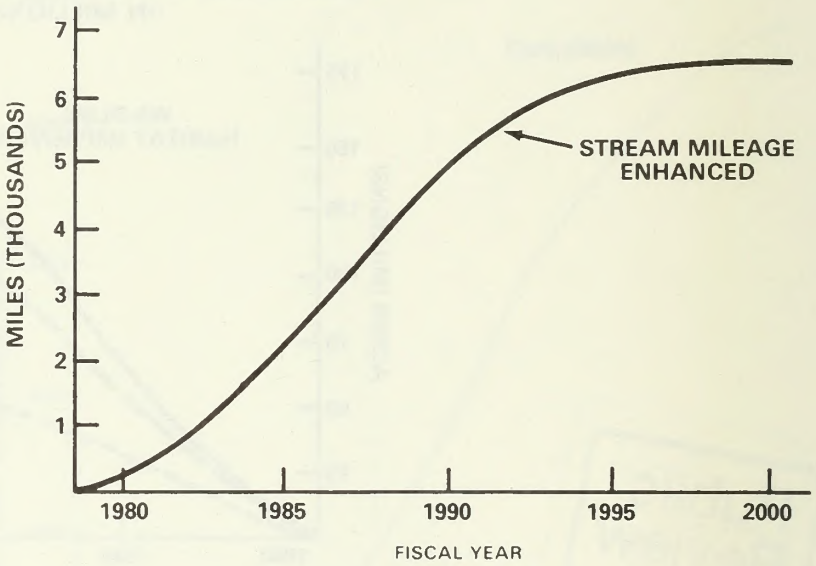


FIGURE 9 (CONTINUED)

• STREAMS ENHANCED (THOUSANDS OF MILES):



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Benefits

Projected benefits from sustained investments and support in the grazing management and rangeland improvement program will accrue in five major categories: acres of rangeland improved, reductions in erosion, additional forage for all uses, habitat improvement, and stream restoration. The Bureau's rangeland management program, with continued support can result in:

- improvement in the condition of 135 million acres of rangeland;
- forage production doubled from 5.6 million tons to 11.2 million tons;
- reduction of erosion on 68 million acres;
- habitat improvement for wildlife and wild horses and burros on 155 million acres; and
- restoration of 6,500 miles of riparian streams.

This will achieve a substantial improvement in the overall condition of rangelands for the maintenance of soil; the improvement of water quality and vegetation cover; for livestock production; for the stabilization of viable herds of wild horses and burros; and for improved habitat for numerous species of fish and wildlife.

Chapter 6.

INVOLVING THE ENTIRE RANGELAND COMMUNITY

It is clear that the public rangelands are gaining a wider national constituency. This is true both in terms of the dramatic increase in demands for the use of the rangeland resource and in the many voices calling for more effective management of the nation's rangelands.

Recreationists, wildlife advocates, wilderness enthusiasts, amateur archeologists and rock hounds who, not long ago had never heard of BLM, have now joined livestock interests in considering the public lands, including the rangelands, as *their* lands. While public attention was focused on the issue of how grazing fees would be set, it was this unprecedented coalition of interests that helped get the Public Rangelands Improvement Act passed in the closing weeks of the 95th Congress.

Just as it requires a funding commitment, rebuilding the public rangelands will require an unprecedented level of commitment, cooperation and compromise by all users of rangeland resources. While a few years ago such a coalition of interests would have been very unlikely, there are signs that public land interest groups are willing to abandon traditional adversary relationships and work together. Part of this willingness is a recognition that, whatever their differences, fundamentally they hold common objectives with respect to the need for improving and maintaining the productivity of rangeland ecosystems.

A principal component in the Bureau's rangeland management strategy will be an aggressive across-the-board increase in consultation and cooperation with all rangeland user groups, the range science and academic community, State and local government authorities, and individuals. This chapter briefly describes the programs being designed to achieve this objective.

Public Involvement

Throughout the Bureau's rangeland planning and management programs, from preplanning analysis to on-the-ground work, public involvement will be a continuing process in decisionmaking. Recognizing that stringent deadlines for filing EIS's in accordance with court-approved schedules may not provide the time for review that some would like, BLM will nonetheless strive to seek a broad spectrum of public input and provide as much time as possible for that input.

Interested individuals and groups will be consulted regularly in each planning area and given continuing access to the planning process so that they can express their own needs and objectives. BLM managers and their staffs will provide information at each step in the planning process and will actively seek public participation in preplanning analysis to gain insights about perceived problems and issues; in inventory to gain local information on resource condition and trend; and on rangeland quality during analysis to ensure that all viable alternatives are examined; during the environmental assessment

process pursuant to the National Environmental Policy Act; and finally, up to the rendering of decisions affecting the allocation of the rangeland resource values. Bureau staff will work closely with affected individuals and groups at the local level to attempt to arrive at an agreement on the schedule for implementing management decisions and to identify needed improvement projects within the framework of existing policy.

At the national level, the Bureau will keep major environmental, wildlife, and commodity groups informed on the progress of the rangeland program, solicit their advice on major decisions, and facilitate their involvement in the formal review process for each range EIS.

The Bureau is currently studying opportunities for working with third-party organizations to coordinate the participation of specific interest groups in rangeland management programs in general, and in the range EIS schedule in particular.

State and Local Government Liaison

Given the extent of federally managed lands in the Western States, close liaison with State and local governments through the rangeland management program is essential. The principal responsibility for developing close and cooperative working relationships with State and local governments will continue to rest with the Bureau's State Directors and their respective District and Area Managers. In most areas, these grassroots relationships have been carefully cultivated. More can and will be done.

At the national level, the Bureau will establish regular liaison with the National Governors Association (NGA) through its subcommittee on rangeland management. The Bureau will use the NGA subcommittee as a principal channel for communicating the goals and objectives of the rangeland management program, for understanding the interests and concerns of the Governors and for exploring new management approaches, and for exchanging views with respect to the direction and emphasis of the program.

In addition, several western States have established State rangeland committees. The Bureau will work closely with each such committee and urge those States which have not already done so to establish their own committees to provide a central focus for State coordination.

Advisory Groups

An important element in expanding public understanding and involvement in the rangeland program is the use of citizen advisory panels. The Federal Land Policy and Management Act of 1976 (FLPMA) provided for the establishment of District Grazing Advisory Boards (Sec. 403), and many such boards have been chartered at the request of permittees within BLM Districts. Even though their functions are limited by law to offering the District Manager advice on the development of

Allotment Management Plans and the expenditure of range betterment funds returned to the District, the boards offer good opportunities for direct contact between Bureau employees, livestock industry representatives at the local level, and interested publics who are afforded early notice of each board meeting and have opportunities to offer their views.

Still, the loop is not entirely closed at the District level. Given the multiple use emphasis of FLPMA, there is a clear need for the advice and counsel of a cross section of the users of the public rangelands. Congress agreed with constituent suggestions that the Bureau should establish District Multiple Use Advisory Councils and so amended FLPMA by inserting such a requirement in the Public Rangelands Improvement Act of 1978 (Sec. 13). The new language makes mandatory the establishment of such councils and the Bureau will move quickly to seek nominations and approve appointments to the district councils.

The broadest possible context is applied to a multiple use advisory council; that is, its advice to the District Manager should cover all program elements under his jurisdiction. Further, the Bureau is moving away from designating individual categories of membership on a multiple use council with such rigid terms as livestock, forestry, water quality, etc., to assure that thorough attention is given to the larger public interests involved.

Finally, the Bureau is in the process of establishing a 15-17 member National Public Lands Advisory Council. This group will offer the Director and the Secretary advice on the full range of national resource management policy issues.

Experimental Stewardship Program

Section 12 of the Public Rangeland Improvement Act of 1978 authorizes and directs the Secretaries of Interior and Agriculture:

> "...to develop and implement, on an experimental basis on selected areas of the public rangelands which are representative of the broad spectrum of range conditions, trends, and forage values, a program which provides incentives to, or rewards for, the holders of grazing permits and leases whose stewardship results in an improvement of the range condition of land under permit or lease. Such program shall explore innovative grazing management policies and systems which might provide incentives to improve range conditions."

The Bureau sees this "Stewardship Program" as an outstanding opportunity for developing a climate of cooperation among all of the users of rangeland resources, for ensuring orderly implementation of completed resource management plans, for identifying new needs and conditions to modify existing plans,

and for developing innovative methods for increasing the productivity of the rangeland resources.

The Bureau is especially interested in opportunities the experimental program may have for identifying incentives and rewards for grazing permittees whose sound management results in improved range conditions and for finding better ways of coordinating the management of intermingled public and private lands.

The Bureau and the Forest Service have developed a statement of principles for the program and have begun to identify opportunities for exploring a wide range of incentives. Some of the possibilities being considered by BLM include:

- Increased freedom of operation for permittees who have demonstrated the skill to improve range conditions. Achievable goals would be identified benchmarks and checkpoints for monitoring progress. Within specified limits, permittees could test their own innovative approaches to improving range condition.
- Analysis of the feasibility of using a credit reduction against grazing fees to offset costs of experimentation with livestock manipulations that lead to improved range condition.
- Provisions that increased livestock forage that results from the stewardship effort will accrue to the permittee whose efforts caused that increase.
- Public recognition for permittees who clearly demonstrate good stewardship.
- Cooperative range management projects on selected areas where land ownership is mixed and there is a broad representation of resource users and interests. Experimental project areas will be selected to provide a full spectrum of range conditions, trends and forage values. These projects will be designed to foster a greater degree of cooperation among the Federal and State agencies charged with the management of the rangeland, local rangeland users and representatives of other interests.

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As this program evolves, additional incentives and approaches to improving range conditions will be identified and tested. The results of the experimental stewardship effort must be reported to the Congress by December 31, 1985.

The Scientific Community

An important element in enhancing the new coalition for rangeland management is the involvement of the resource sciences community. To this end, the Bureau will establish a science and research staff and is working with the National Academy of Sciences on a review of channels for involvement by the scientific community in Bureau programs. Rangeland management will be the first area examined.

In addition, the Bureau will take steps to identify rangeland management research and scientific information needs, methods of making more effective use of both its own limited research budgets and opportunities for participation in the research programs of other Federal agencies such as the Forest Service and the Science and Education Administration. In developing the rangeland management research program, the Bureau will work closely with established research organizations and academic institutions with recognized expertise in rangeland science.

Workshop and Symposium Series

It is clear that many basic scientific and methodological questions will have to be resolved before a successful rangeland management program can be fully implemented. Fundamental disagreements exist within the range science community and among federal agencies and range user groups over definitions, methods of measurement, the effectiveness of specific management techniques, and other questions which, until resolved, will hamstring effective management.

To help achieve resolution of these issues, the Bureau, with cooperation from other Federal agencies, will sponsor a continuing series of scientific workshops and symposia to be conducted by the National Academy of Sciences and designed to deal with clearly focused and defined scientific and methodological questions. Participation will be broad and the objective of each session will be to reach consensus on the resolution of the question or methodology being examined. The issues to be examined in these symposia, beginning in fiscal year 1980, include:

- Vegetation allocation.
- Socio-economic concerns related to the rangeland management program.
- Rangeland measurements and criteria for unsuitability for livestock use.
- Range improvements.
- Grazing systems.
- Management of livestock grazing on riparian and wetland areas.

Chapter 7.
CONCLUSION

Our subject is the Nation's public rangelands, owned by all Americans—and managed in the broad public interest by the Bureau of Land Management. Few Americans are aware of this national legacy or the contributions it makes to their lives. But those who, like their fathers before them, gain sustenance from it are keenly aware of their stake in the land and its productivity. And it is equally clear that a growing body of people—some far removed from the land—have different but nevertheless legitimate expectations and exert their own demands upon this last, largely uncommitted, public estate.

All reasoned voices will be heard and considered and involved in shaping a management philosophy for the great national legacy. That philosophy must evolve and encompass the broad center of national thought, opinion and interest in order to be viable and lasting.

The proper balance of protection, development and use of these lands is our collective challenge. There is room enough and potential productivity enough for most aspirations. Together we must forge a clear policy and work to make it a reality.

APPENDIX A

APPLICABLE LEGISLATION AND EXECUTIVE ORDERS

I. Legislation

The rangeland management program is developed under Federal laws that provide authority to regulate rangeland use, and Federal laws that establish a national policy framework within which rangeland management is conducted to protect associated values. The policy guiding laws generally consist of resource and environmental protection laws that may be implemented through executive orders or other executive branch guidance. The more important executive guidance will be highlighted.

A. The Federal laws providing regulatory authority for management and improvement of the public lands are as follows:

1. The Taylor Grazing Act of 1934, as amended (43 U.S.C. 315 et. seq.).

2. The Wild Free-Roaming Horse and Burro Act of 1971, as amended (16 U.S.C. 1331 et. seq.).

3. The Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. 1701 et. seq.).

4. The Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et. seq.).

5. The Farm Tenant Act of 1937 (7 U.S.C. 1012-1013A) (The Bankhead-Jones Act).

6. The Act of August 28, 1937 (43 U.S.C. 1181d), regarding the revested Oregon and California Grant Lands.

7. The Vegetative Materials Act of 1955 (30 U.S.C. 601).

B. The Federal laws that provide a national policy framework within which the rangeland management program must function are as follows:

1. The Act of September 15, 1960, as amended (The Sikes Act) (16 U.S.C. 670g).

2. The Endangered Species Act (16 U.S.C. 1531).

3. Federal Water Pollution Control Act and Amendments (33 U.S.C. 1251 et. seq.).

4. The National Soil Conservation Act and the Soil Conservation and Domestic Allotment Act (16 U.S.C. 5909a-q)

5. The National Environmental Policy Act of 1969 (42 U.S.C. 4321 et. seq.).

6. The Watershed Protection and Flood Control Act (16 U.S.C. 1001).

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7. Water Resources Planning Act (43 U.S.C. 1962).

8. Colorado River Basin Salinity Act (43 U.S.C. 620d, 1543, 1571-1578).

9. The Air Quality Control Act (42 U.S.C. 1857).

10. The Noise Control Act (42 U.S.C. 4901).

11. Federal Insecticide, Fungicide and Rodenticide Act, as amended (7 U.S.C. 135).

12. Grasshopper Control Joint Resolution (7 U.S.C. 148).

13. The Noxious Weed Control Act (43 U.S.C. 1241).

14. Halogeton Glomeratus Control Act (7 U.S.C. 1651).

15. Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 581h and 1601-1610).

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16. Environmental Education Act (20 U.S.C. 1531).

17. Foreign Assistance Act of 1961 (22 U.S.C. 2151) and Mutual Educational and Cultural Exchange Act (75 Stat. 527).

18. The following Federal laws establish policy with respect to special areas, resources, animal species or groups of species:

a) The Fish and Wildlife Coordination Act (16 U.S.C. 661).

b) The Fisheries Conservation and Management Act (16 U.S.C. 1801).

c) The Migratory Bird Conservation Act (16 U.S.C. 715).

d) The Tule Elk Resolution (90 Stat. 1189).

e) The Bald Eagle Protection Act (16 U.S.C. 668).

f) The Antiquities Act of 1906 (16 U.S.C. 431) and the Historic Preservation Act (16 U.S.C. 4701).

g) The National Scenic Highways Systems Act (23 U.S.C. 148).

h) The National Wilderness Preservation Systems Act (16 U.S.C. 1131).

i) The Wild and Scenic Rivers Act (16 U.S.C. 1271).

II. EXECUTIVE ORDERS

Additional policy direction affecting the rangeland management program is transmitted to the Bureau of Land Management through the following executive orders.

A. E.O. 11593 — provides for protection or salvage of cultural resources.

B. E.O. 11987 — relates to restricting the introduction of exotic species.

C. E.O. 11988 — provides for protection and management of floodplains.

D. E.O. 11990 — provides for protection of wetlands.

GLOSSARY

A

Accelerated Erosion: Soil movement or loss caused by disturbances due to man's activities, which exceeds normal geologic erosion.

Appropriation: Funds made available by Congress to the Administration for carrying out specific programs.

Authorization: The action by Congress which establishes authority to appropriate funds. An authorization does not provide funding.

C

Critical Habitat: Any air, land or water area, including any elements thereof, which the Secretary of the Interior or the Secretary of Commerce has determined (and has published in the Federal Register) to be essential to the survival of wild populations of an endangered or threatened species or to be necessary for their recovery.

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E

Environmental Assessment: A written analysis of the anticipated environmental impacts resulting from a proposed action.

F

Forage: That collective portion of browse and herbaceous plant material on a given rangeland area which is properly utilizable by grazing animals.

G

Grazing Management: Direction, control and manipulation of grazing by livestock, wildlife ungulates and wild free-roaming horses to achieve a desired result.

Grazing System: Systematic application of grazing treatments to a management unit in a prescribed sequence over recurring periods of time.

Grazing Treatment: The use of grazing animals in a specified manner to achieve a desired result. Grazing treatments include non-use, deferment and rest from grazing use, and rotation of grazing use. Various treatments applied sequentially to a specific area result in a grazing system.

H

Habitat: The natural abode of a plant or animal, including all biotic, climatic, and edaphic factors affecting life.

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J

Job Document Report: A multi-purpose Bureau of Land Management form used to document pertinent information concerning each rangeland improvement project for purposes of annual work planning, progress reporting and project data maintenance.

M

Management Principles: Standards and practices which will be applied in planning, organizing, directing, controlling, and evaluating the rangeland management program.

Multiple Use: "...the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output." (Section 103(c), Federal Land Policy and Management Act of 1976.)

P

Prescribed Burning: The use of fire as a management tool under specified conditions for burning a predetermined area.

R

Rangeland Condition: The quality of rangeland reflected in its ability to support various levels of productivity in accordance with multiple use objectives and land use plans. The term relates to (1) plant communities, soil quality, forage values, watershed protection, scenic values and habitat for wildlife, livestock, and wild free-roaming horses and burros, (2) the present state of vegetation of a rangeland site in relation to the potential plant community for that site and (3) the relative degree to which the kinds, proportions, and amounts of vegetation in a plant community resemble that of the desired community for that site.

Rangeland Ecosystems: Plant and animal communities on rangelands which, along with interrelated abiotic factors of soil, topography and climate, comprise an interacting system.

Rangeland Improvements: Any practice or project on or relating to rangelands which is designed to improve production of forage; change vegetative composition; control patterns of use; provide water; stabilize soil and water conditions; and provide habitat for livestock and wildlife. The term includes, but is not limited to structures, treatment projects, and use of mechanical means to accomplish the desired result.

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Rangeland Improvement Practices: The wide variety of methods used and actions taken to accomplish rehabilitation, protection, and improvement of the rangelands and their affiliated resources and resource values.

Rangeland Improvement Projects: Structures, developments, or treatments used to rehabilitate, protect or improve the public rangelands with regard to vegetation conditions, watershed protection, scenic values, and habitat for fish, wildlife, livestock, and wild free-roaming horses and burros.

Rangeland Management: Making provision for and regulating consumptive and non-consumptive uses of resources coordinated with all other activities and uses within ecosystems. This includes rangeland practices.

Rangeland Management Program: A planned systematic approach to restore and maintain the productivity of rangelands. Such a program will affect and be affected by other renewable and non-renewable resource programs, but it will not develop or implement recreation use plans, mineral leasing plans, energy development plans, timber harvest plans, forest management plans, cultural resource management plans and other activity plans for non-renewable resources.

Rangeland Resources: Products occurring on or developed from public rangelands which have value, either real or intrinsic.

Recovery Plan: A comprehensive plan to bring about the removal of a threatened or endangered species from the official list. The plan concentrates on a designated species and identifies factors affecting its biological status, the problems to be overcome and actions that must be taken for successful restoration.

Resource Activities: Actions which relate to one or more of the multiple values found on public lands.

Resource Management Plan: A land use plan as prescribed by the Federal Land Policy and Management Act. It establishes (1) coordination and allocation between the various resource uses, (2) goals for resource conditions and uses, and (3) general strategies for resource management actions.

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S

Species Composition: The proportions of individual plant species in relation to the total on a given area.

Study: Periodic and systematic data collection and evaluation to monitor resources and their uses.

Supervision and Observation: The direction, inspection and attention to, and the noting and recordation of uses and the effects they have on the various parts of the rangeland ecosystem.

Sustained Yield: The achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use.

V

Vegetation Allocation: The apportionment of current and projected vegetation among competing uses to achieve and/or maintain a desirable ecosystem and determined multiple use objectives. This includes allocation of vegetation for ecosystem maintenance and allocation of forage for consumptive use by livestock, wild free-roaming horses and burros, and wildlife in such a manner as to provide for nonconsumptive vegetative requirements for watershed protection, aesthetics, habitat, cover, and other uses.

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